

Shram Shakti Bhawan,
Rafi Marg, New Delhi
Dated, the 1st August, 2022

To,

Chairperson
Central Electricity Authority
Sewa Bhawan, R K Puram
New Delhi-110066

Subject: Techno-economic norms on under-grounding of power lines

Sir

I am directed to say that of late, number of issues related to undergrounding of power lines had arisen and accordingly, a Technical Expert Committee (TEC) under Member (Power System), Central Electricity Authority (CEA), with representatives of Central Transmission Utility of India Ltd and Ministry of Environment Forest and Climate Change, was constituted to clearly lay down the techno-economic norms on undergrounding of power lines, so that adhoc decision on case to case basis is replaced by decision making based on transparently announced norms framed by the TEC.

2. The Committee had examined the Technical feasibility of under-grounding of transmission lines and submitted their report. The report has been approved and based on recommendation of the Committee, it has been decided that following broad principles for undergrounding of power lines should be followed:

- a) Undergrounding of transmission lines of 66 kV and above voltage levels is not technically feasible for evacuation of Bulk power on account of the different constraint as mentioned in the report. The power evacuation lines be allowed to be constructed over ground as any outage in the underground line due to any fault/damage would require much longer time for restoration that compared to overhead line and would amount to huge generation losses.
- b) In respect of 33 kV and below rated lines, which are used for transfer of lower volumes of power over shorter distances, the undergrounding of transmission lines is technically feasible and can be adopted, keeping in view local circumstances.
- c) The following guidelines may be followed for installation of bird diverters, wherever felt necessary:
 - i) In respect of EHV transmission lines with two or more conductors per phase (bundle conductors), placement of bird diverters on the Earth wire(s)/ OPGW may suffice.
 - ii) In respect of transmission lines with single conductor in each phase, the bird diverters can be placed on the phase conductors as well as on the Earthwire(s)/ OPGW.

- iii) The bird diverters shall be placed on central 80% span of the line and at an interval of 10 m.
- iv) Technical specification for Bird Diverters as finalized by the Hon'ble Supreme Court appointed Committee in consultation with CEA shall be followed.

3. This issues with the approval of the Hon'ble Minister of Power and New and Renewable Energy.

Yours faithfully,



(Sanjeev Jain)
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Copy to:

1. Secretary, Ministry of New & Renewable Energy, New Delhi
2. Secretary, Ministry of Environment Forest and Climate Change, New Delhi
3. Chief Operating Officer, Central Transmission Utility of India, Gurugram
4. Managing Director, Solar Energy Corporation of India Ltd, Gurugram
5. CMD, Power Grid Corporation of India Ltd, Gurugram
6. All Transmission Developers
7. Director, NIC, Ministry of Power -for uploading the same in the Ministry of Power's website.