Electricity Transmission Overhead Lines - Guidance

You should be aware of the following information regarding National Grid's 400,000 volt (400 kV) and 275,000 volt (275 kV) (1) overhead lines and associated apparatus:

Our overhead lines are protected by renewable or permanent agreements with landowners. These grant us legal rights that enable us to achieve efficient and reliable operation, maintenance, repair and refurbishment of our electricity transmission network. Hence we recommend that no permanent structures are built directly beneath overhead lines, at least 2 metres clearance is maintained at the base of our towers and unrestricted vehicular access is maintained at all times. Please submit any development proposals around the base of a tower to the Plant Protection Team.

The relevant guidance in relation to working safely near to existing overhead lines is contained within the Health and Safety Executive's (www.hse.gov.uk) Guidance Note GS 6 "Avoidance of Danger from Overhead Electric Lines" and all relevant site staff should make sure that they are both aware of and understand this guidance.

The statutory minimum safety clearance is 7.6 metres to ground and 8.1 metres to a normal road surface. Further detailed information can be obtained from the Energy Networks Association's (www.energynetworks.org.uk) Technical Specification 43-8 for "Overhead Line Clearances", Issue 3 (2004).

Plant, machinery, equipment, buildings or scaffolding should not encroach within 5.3 metres of any of our high voltage conductors when those conductors are under their worse conditions of maximum "sag" and "swing" and overhead line profile (maximum "sag" and "swing") drawings should be obtained via the National Grid's Plant Protection Team.

For operational and safety reasons National Grid requires unrestricted access to our substation sites. We would request that any proposed changes to roads/layouts in the vicinity of our site have regard to the need to maintain access.

If any changes in ground levels are proposed either beneath or in proximity to our existing overhead lines then this would serve to reduce the available safety clearance to such overhead lines. Safe clearances to existing overhead lines must be maintained in all instances and circumstances.

If a landscaping scheme is proposed as part of the works, we request that only low growing and slow growing species of trees and shrubs are planted either directly beneath or immediately adjacent to the existing overhead line, as ultimately they may grow to attain heights that compromise safe statutory clearances to the conductors.

Drilling or excavation works should not be undertaken if they have the potential to disturb or adversely affect the foundations or "pillars of support" of any existing tower. These foundations always extend beyond the base area of the existing tower and foundation ("pillar of support") drawings can be obtained via the National Grid Plant Protection Team.

Flammable or explosive, (e.g. fireworks), substances or materials should not be stored near to a tower or beneath an overhead line.

For proposed windfarms the separation distance between a turbine and overhead line shall generally be no less than three times the diameter of the turbine blade.

The relocation or under-grounding of existing overhead lines is not normally feasible on grounds of cost, operation and maintenance and environmental impact and we believe that successful development can take place in their vicinity.

For further general information see http://www.nationalgrid.com/uk/LandandDevelopment also see "Development Near Overhead Lines" http://www.nationalgrid.com/uk/LandandDevelopment/DDC/devnearohl_final/ and our design guidelines "Sense of Place" http://www.nationalgrid.com/uk/senseofplace plus important safety information at http://www.nationalgrid.com/uk/LandandDevelopment/Safety/ Other publications such as "Working with You" can be ordered via the Transmission Asset Protection Team.

1 We also have lower voltage circuits in operation but the data on this sheet corresponds to 400 kV

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