

APPENDIX 5A Guidance for overhead line routeing

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The following guidance is supplementary to the Holford Rules outlined in Chapter 5: Route Selection Process.

National Grid Company Supplementary Notes (1992)

- 'Residential areas: Avoid routeing close to residential areas as far as possible on grounds of general amenity
- Designations of County, District and Local Value: Where possible choose route which minimise the effect on Special Landscape Areas, Areas of Great Landscape Value and other designations of County, District of Local value
- Alternative Tower Designs: In addition to adopting appropriate routeing, evaluate where appropriate the use of alternative tower designs now available where these would be advantageous visually and where the extra cost can be justified'.

SHETL Notes 2004 (adapted to identify English and Welsh designations)

Notes on Rule 1:

- Investigate the possibility of alternative routes, avoiding if possible major areas of highest amenity value. If there is an existing transmission line through an area of highest amenity value and the surrounding land use has to some extent adjusted to its presence, particularly in the case of commercial forestry, then the effect of remaining on this route must be considered in terms of the effect of a new route avoiding the area.
- Areas of highest amenity value require to be established on a project by project basis considering planning guidance and the spatial extent of areas identified.
- Examples of areas of highest amenity value which should be considered are:
 - Special Area of Conservation
 - Special Protection Area
 - Ramsar Site
 - National Parks
 - Areas of Outstanding Natural Beauty
 - National Nature Reserves
 - Protected Coastal Zone Designations
 - Sites of Special Scientific Interest (SSSI)
 - Scheduled Monuments
 - Listed Buildings
 - Conservation Areas
 - World Heritage Sites (a non-statutory designation)
 - Historic Gardens and Designed Landscapes (a non-statutory designation)

Notes on Rule 2:

- Small areas of highest amenity value not included in Rule 1 as a result of their spatial extent should be identified along with other areas of regional or local high amenity value identified from development plans.
- Effects on the setting of historic buildings and other cultural heritage features should be minimised.
- If there is an existing transmission line through an area of high amenity value and the surrounding land uses have to some extent adjusted to its presence, particularly in the case of commercial forestry, then the effect of remaining on this line must be considered in terms of the effect of a new route deviating around the area.

Note on Rule 3:

- Where possible choose inconspicuous locations for angle towers, terminal towers and sealing end compounds.
- Too few angles on flat landscape can also lead to visual intrusion through very long straight lines of towers, particularly when seen nearly along the line.

Notes on Rules 4 and 5:

- Utilise background and foreground features to reduce the apparent height and domination of towers from main viewpoints.
- Minimise the exposure of numbers of towers on prominent ridges and skylines.
- Where possible follow open space and run alongside, not through woodland or commercial forestry and consider opportunities for skirting edges of copses and woods. Where there is no reasonable alternative to cutting through woodland or commercial forestry the Forestry Commission Guidelines should be followed (Forest Landscape Design Guidelines, second edition, The Forestry Commission 1994 and Forest Design Planning – A Guide to Good Practice, Simon Bell/The Forest Authority 1998)

Notes on Rule 6:

- In all locations minimise confusing appearance.
- Arrange wherever practicable that parallel or closely related routes are planned with tower types, spans and conductors forming a coherent appearance; where routes need to diverge, allow where practicable sufficient separation to limit the effects on properties and features between lines.

Notes on Rule 7:

- When a line needs to pass through a development area, route it so as to minimise as far as possible the effect on development.
- Alignments should be chosen after consideration of effects on the amenity of existing development and on proposals for new development.
- When siting substations take account of the effects of the terminal towers and line connections that will need to be made and take advantage of screening features such as ground form and vegetation.

Explanatory note on Rule 7:

- The assumption made in Rule 7 is that the highest voltage line is overhead.

Forestry Commission Guidelines

The guidelines specify design parameters for routeing transmission line corridors through woodland areas:

- Route transmission lines to follow open space and to run along side not through woodland
- Where there is no alternative route, a power line through a forest should avoid areas of landscape sensitivity; avoid the line of sight of important views; be kept in valleys and depressions; not divide a hill into two similar parts where it crosses over a summit; cross skyline or ridges where they drop to a low point; follow alignments diagonal to the contour as far as possible; and be inflected upwards in hollows and downwards on ridges.

Planning and Amenity Aspects of High Voltage Transmission Lines and Substations, National Grid, first published 1997, reprinted 1999

This document refers to the selection of an overhead line route as being a balance between various factors or constraints. In selecting a route the visual effect should be minimised in terms of the number of people affected and the degree to which they are affected. The

nature and topography of the area should be considered along with any statutory protection. Routes should seek to avoid crossing the highest contours where the line would be most prominent, and the quality of the landscape and its ability to accommodate an overhead line should also be taken into account. Existing vegetation, buildings and topography should be utilised for their screening ability where possible and when viewed from principle viewpoints an overhead line should ideally be viewed against a background of existing landscape or development rather than sky.

It is however noted in this publication that a number of potential conflicts of interest may exist in establishing a new overhead line route. For example the best route through a landscape may be to follow a river valley rather than the adjacent higher ground where the effect outside the valley will be minimised. The valley is however likely to be more intensively populated and likely to contain transport corridors and the most versatile agricultural land, which may lead to the route having a greater effect on a larger number of people. The upland areas on the other hand may have relatively little development and fewer dwellings but are likely to be covered by protective designations. In practise a combination of many factors needs to be considered and the route selection will vary on a case by case basis and in response to individual circumstances.

