



## Picture Book

### Electricity Distribution

#### Description and role of geographic information.

Overhead high voltage electricity pylons are part of the distribution system that delivers electric power to society from the power generating plant. The pylons and the overhead cables are normally the property of the power distribution organisation. Other organisations and people usually own the land that the pylons stand upon.

Geographic Information is utilised extensively by the power distribution organisation and their contractors where applicable throughout the life cycle of the pylons, which will include the design, the building, the maintenance and the demolition phases.

As part of the building process the power distribution organisation will apply for planning permission to the local planning authority. In sensitive or scenic areas the visual impact of the pylons will be modelled using geographic information as part of the planning application process. The planning authorities, countryside agencies and tourist boards will use geographic information to undertake impact assessments during the planning application phases.

The power distribution organisation will also enter into rights of access contracts with the landowners in order that the power distribution company's personnel or contractors can gain access to the pylons. The Cadastre or Land Registry will hold this information.

The location of high-tension power lines within built up urban areas will also be considered with respect to safety and health. Where the high-tension cables cross major transport routes such as railways or motorways extra safety facilities may need to be provided. Geographic information will be used to plan the route to address these issues.

Health incidents such as cancer for example may also be modelled in relationship to the location of the pylons and overhead high tension power cables. The health data will be compiled by the health authority's that will also use geographic information in analysis to consider the occurrence of cancer clusters in relationship to the overhead cables.

In maintaining the pylons and power cables, insulators and other equipment attached to the pylons annual helicopter surveys maybe undertaken. In order that the helicopter does not disturb the life stock unnecessarily the power distribution organisation will also hold records that indicate the life stock farms across which the pylons and overhead cables pass.

#### Acknowledgements:

**Photographer:** Matteo Mode

**Location:** Electricity pylons, Hackney Marshes, Hackney Borough, London, England

**Date published:** January 2004