



design and advisory solutions to the power sector

British Power International uses the latest LiDAR technology to survey overhead lines. Whilst the traditional manual survey method is ideal for short surveys, the aerial LiDAR platform is best placed for multiple or longer overhead line routes requiring efficient acquisition of detailed survey data.

BPI has completed over 1000km of aerial LiDAR survey and overhead line design throughout the UK at a range of voltages. Our dedicated team of experts have extensive experience in undertaking a range of overhead line designs for new OHL schemes, existing line refurbishments, OHL diversions, thermal uprating studies or basic clearance studies. Design is undertaken using industry standard PLS-CADD software which is configured with the client's own specification.

The aerial LiDAR platform not only captures in excess of 100km/day, the acquired data set includes both high density laser point cloud data and supporting high resolution imagery covering a swathe width of 200m.

The HD imagery is used to colour the point cloud data, providing a high accuracy true 3D life size model of the project area on which to base the OHL design.





Application of LiDAR:

- Design of new OHL schemes
- OHL deviations
- Online refurbishments or rebuilds
- OHL uprating studies
- Identification of vegetation issues
- Identification of potential hazards from residential and commercial properties

Benefits of LiDAR:

- Health and safety issues minimised as no walking access required, reducing the risk of encountering hazardous situations
- Fast results can fly in excess of 100km per day
- High quality data giving detailed results

Processing the LiDAR output data

All aerial-based LiDAR systems produce a large data set which requires specialist high volume server storage and post-processing software.

The BPI software configurations provide a graphical representation of each structure with links to their loading capabilities and fittings. The configuration enables the production of engineering reports, demonstrating the OHL is compliant with the client specification. Fixtures and fittings schedules can be produced with the client specified commodity codes.

Overhead line design outputs

- OHL profile drawings
- Line design schedules
- Engineering specification compliance document

British Power International is a member of the Freedom Group of Companies; part of the EnServe Group

- Fixtures and fittings schedule
- Route maps with various overlays

Contact the Business Development team on: 0845 168 6170 www.bpienergy.com info@bpienergy.com